WHAT IS CLAIMED IS:

1. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <11-20>; and

a trench that is formed on the silicon carbide substrate and has a stripe structure extending toward a <11-20> direction,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

2. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <1-100>; and

a trench that is formed on the silicon carbide substrate and has a stripe structure extending toward a <1-100> direction,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

3. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <11-20>; and

a trench that is formed on the silicon carbide substrate and has a side wall of a {1-100} surface,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

4. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <1-100>; and

a trench that is formed on the silicon carbide substrate and has a side wall of a {11-20} surface,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

5. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented surface having a certain off-axis direction; and

a trench that is formed on the silicon carbide substrate, wherein each side of a planar structure of the trench is at an angle of 80 degrees or less with respect to the certain off-axis direction,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

6. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented surface having a certain off-axis direction; and

a trench that is formed on the silicon carbide substrate, wherein each side of a planar structure of the trench is at an angle of 75 degrees or less with respect to the certain off-axis direction,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

7. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <11-20>; and

a trench that is formed on the silicon carbide substrate and has a side wall of a {11-20} surface that is not perpendicular to the off-axis,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

8. A silicon carbide semiconductor device comprising:

a silicon carbide substrate that is provided with an off-oriented {0001} surface whose off-axis direction is <1-100>; and

a trench that is formed on the silicon carbide substrate and has a side wall of a {1-100} surface that is not perpendicular to the off-axis,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

9. A silicon carbide semiconductor device comprising:

a silicon carbide substrate being a hexagonal crystal silicon carbide substrate having a {11-20} main surface; and

a trench that is formed on the silicon carbide substrate

and has a side wall of being slant at an angle of one degree or more with respect to a {0001} plane in a sectional structure,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.

10. A silicon carbide semiconductor device comprising:

a silicon carbide substrate being a hexagonal crystal silicon carbide substrate having a {1-100} main surface; and

a trench that is formed on the silicon carbide substrate and has a side wall of being slant at an angle of one degree or more with respect to a {0001} plane in a sectional structure,

wherein a silicon carbide epitaxial layer is formed on an inside surface of the trench.